

REMARKS

Specification

The Examiner states that the title of the invention is not descriptive, and that a new title is required that is clearly indicative of the invention to which the claims are directed. Applicant has proposed an amended title, which is believed to be adequately descriptive with respect to the claimed invention. As provided in MPEP 606.01, if the Examiner believes that the title is not adequately descriptive, the Examiner may, at the time of allowance, change the title by Examiner's amendment.

Claim Rejections - 35 USC § 102

Claims 1 and 2 are rejected under 35 U. C. 102(b) as being anticipated by Riedel (U.S. Patent 6,150,124). The Examiner states Riedel discloses (see Fig. 4 and col. 5, lines 30-45) a circuit for detecting light comprising: a light-integrating photosensor circuit (18 and microprocessor, not shown) having one or more thin-film photosensors and being responsive to a variable integration period signal and to ambient light for producing a photo signal representing the intensity of the ambient light, wherein the photo signal may be in one of at least three states including a no-signal state (below some threshold; low ambient light), an in-range state (between two thresholds) and a saturated state (above some threshold; high ambient light); and a control circuit (microprocessor, not shown) for receiving the photo signal and automatically (see col. 6, lines 8-10) increasing (see col. 5, lines 40-44) the period of integration period signal when the photo signal is in the no-signal state, and decreasing (see col. 5, lines 40-44) the period of the integration period signal when the photo signal is in the saturated state so as to result in the photo signal being in the in-range state and producing a corresponding ambient light signal. This rejection is respectfully traversed.

Contrary to the Examiner's assertion, there is no teaching in Riedel with respect to a circuit which automatically changes the period of an integration signal to an integrating photosensor circuit in response to a determination that the photo signal produced by the photosensor circuit is in one of three distinct states (i.e., a no-signal, in-range, and saturated signal states) so as to result in the photo signal being in the in-range state and producing a

corresponding ambient light signal, as required in accordance with the claimed invention. While it is of course possible that a photo signal of Riedel may fall into one of these distinct states, there is simply no teaching of a control circuit to automatically correct the integration period so as to maintain the signal in an in-range state. Rather, Reidel teaches the use of a photodetector in a system for determining the amount of ambient light transmitted through a reagent and/or sample fluid on an analyte strip, and suggests periodic sampling and integration of the output of the photodetector, with an observation that longer integration times may be used for low ambient light levels and shorter integration times may be used for high ambient light levels in the fluid sample analyzer system. Note specifically, however, a “low” ambient light level does not necessarily imply a no-signal state, and a “high” ambient light level does not necessarily imply a saturated signal state. Note further that measuring transmission of light through a reagent or sample fluid does not necessarily produce an ambient light signal. The Examiner has not addressed these previously presented arguments with regard to the deficiencies of the Riedel reference relative to the present claimed invention.

Additionally, there is no support for the Examiner’s apparently new contention that col. 6, lines 8-10 in combination with col. 5, lines 40-44 of Riedel teaches a control circuit (microprocessor, not shown) for receiving the photo signal and automatically increasing the period of integration period signal when the photo signal is in the no-signal state, and decreasing the period of the integration period signal when the photo signal is in the saturated state so as to result in the photo signal being in the in-range state and producing a corresponding ambient light signal. To the contrary, the teachings of Riedel at col. 6, lines 8-21 are rather directed towards the observation that the signal-to-noise ratio of the measured response with respect to the difference between the unhydrated response and the maximum hydrated response in the disclosed sample fluid testing method may be increased under low ambient light conditions by increasing the integration time. This is not a teaching or disclosure in Riedel with respect to automatic control of an integration period signal for a photo-signal to maintain an in-range state of the photo signal as alleged by the Examiner. The Examiner’s contention that Riedel anticipates the present invention accordingly is in clear error, and reconsideration of this rejection is again respectfully requested.

Claim Rejections - 35 USC § 103

Claims 3-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riedel. Regarding claims 3-6, the Examiner states that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide one of the claimed photosensors in the apparatus of Riedel to conveniently and cost effectively obtain ambient light detection. Regarding claims 7-10, the Examiner states that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide either analog or digital signals in the apparatus of Riedel (for digital) to obtain a signal that is more resilient to noise or more compatible with modern digital processors, or (for analog) obtain a more cost effective and less complex device. Regarding claim 11, the Examiner states it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide another photosensor circuit in the apparatus of Riedel to obtain additional detection for redundancy or error-checking purposes. This rejection is respectfully traversed.

As explained above, there does not appear to be any teaching in Riedel with respect to automatically changing the period of an integration signal to an integrating photosensor circuit in response to no-signal, in-range, and saturated signal states. Thus, even if substitution of further features as proposed by the Examiner were to be made in Riedel for the purposes proposed by the Examiner, the present invention still would not be obtained. Further, as Riedel is directed towards a different problem (i.e., increasing signal-to-noise ratio of the measured response with respect to the difference between the unhydrated response and the maximum hydrated response) that that of the present invention, a prima facie case of obviousness has clearly not been established as to modifying the teachings of Riedel so as to obtain the present invention. Reconsideration of this rejection is accordingly respectfully requested.

Claims 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Japanese publication of Toshiba (JP 2002-297096) in view of Riedel. Regarding claims 12-16 and 18, the Examiner states it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a variable integration period ambient light detector in the apparatus of Toshiba in view of Riedel to improve detection by increasing the

dynamic range of the detector as taught. Regarding claim 17, the Examiner states it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide another photosensor circuit in the apparatus of Toshiba in view of Riedel to obtain ambient light detection at different locations for improved display control. This rejection is respectfully traversed.

As explained above, there does not appear to be any teaching in Riedel with respect to automatically changing the period of an integration signal to an integrating photosensor circuit in response to no-signal, in-range, and saturated signal states. Thus, even if the light detector system of Riedel were to be provided in the apparatus of Toshiba as proposed by the Examiner, the present invention display of claim 12 and method of controlling a display of claim 18 still would not be obtained. Further, as Riedel is directed towards a different problem (i.e., increasing signal-to-noise ratio of the measured response with respect to the difference between the unhydrated response and the maximum hydrated response) rather than detecting ambient light level itself as desired in Toshiba and the present invention, a prima facie case of obviousness with respect to modifying the teachings of Riedel in the proposed combination of Riedel and Toshiba so as to result in the present claimed invention has not been established. Reconsideration of this rejection is accordingly respectfully requested.

In view of the foregoing amendments and remarks, reconsideration of this patent application is respectfully requested. A prompt and favorable action by the Examiner is earnestly solicited. Should the Examiner believe any remaining issues may be resolved via a telephone interview, the Examiner is encouraged to contact Applicants' representative at the number below to discuss such issues.

Respectfully submitted,



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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.